

Week Ending
April 15, 1967

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

BUREAU OF DISEASE PREVENTION AND ENVIRONMENTAL CONTROL

PUBLIC HEALTH SERVICE

CURRENT TRENDS

MALARIA IN THE UNITED STATES

As of April 17, 1967, 122 reports of malaria cases had been received by the Malaria Surveillance Unit from military and state health authorities. This preliminary figure exceeds the total of 678 cases reported for the entire year of 1966 (Table 2).

All but 10 cases occurred among military personnel, most of whom had been stationed in Vietnam, but became manifest in this country and were therefore imported¹.

¹Imported - malaria acquired outside of a specific area, U.S.A. in this report.

CONTENTS

Current Trends

Malaria in the United States	117
Influenza - United States	124

Epidemiologic Notes and Reports

Blood Transfusion Induced Case of Falciparum Malaria - California	119
Imported Canine Rabies - Portland, Oregon	119
International Notes	
Quarantine Measure	124

cases. This substantial increase includes a sharp rise in vivax infections (Table 2). Three-fourths of these vivax malaria patients had their onset more than 30 days after their return.

(Continued on page 118)

CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
(Cumulative totals include revised and delayed reports through previous weeks)

DISEASE	15th WEEK ENDED		MEDIAN 1962 - 1966	CUMULATIVE, FIRST 15 WEEKS		
	APRIL 15, 1967	APRIL 16, 1966		1967	1966	MEDIAN 1962 - 1966
Aseptic meningitis	33	31	27	418	426	412
Brucellosis	4	3	6	57	56	93
Diphtheria	—	—	5	35	39	67
Encephalitis, primary:						
Arthropod-borne & unspecified	30	32	---	353	367	---
Encephalitis, post-infectious	29	17	---	223	246	---
Hepatitis, serum	41	34		568	370	
Hepatitis, infectious	842	602	775	11,873	10,432	13,752
Malaria	21	3	1	586	84	27
Measles (rubeola)	2,690	7,578	17,542	34,519	109,383	178,245
Meningococcal infections, total	73	109	100	893	1,530	975
Civilian	65	102	---	821	1,332	---
Military	8	7	---	72	198	---
Poliomyelitis, total	1	1	1	3	7	19
Paralytic	1	1	1	3	6	14
Rubella (German measles)	1,701	1,898	---	17,109	20,888	---
Streptococcal sore throat & scarlet fever	11,810	10,854	9,949	183,193	176,104	162,618
Tetanus	6	3	4	45	28	50
Tularemia	4	—	3	39	50	58
Typhoid fever	11	4	6	93	74	98
Typhus, tick-borne (Rky. Mt. spotted fever)	1	—	—	9	10	6
Rabies in animals	96	106	109	1,301	1,291	1,251

NOTIFIABLE DISEASES OF LOW FREQUENCY

	Cum.		Cum.
Anthrax	1	Rabies in man	—
Botulism	—	Rubella, Congenital Syndrome: Tenn.-1	1
Leptospirosis	9	Trichinosis: N.Y. City-1	22
Plague	—	Typhus, murine: Texas-1	7
Psittacosis	10		

MALARIA IN THE UNITED STATES - (Continued from front page)

Table 1
Malaria Cases Occurring in the United States
1962-1967*

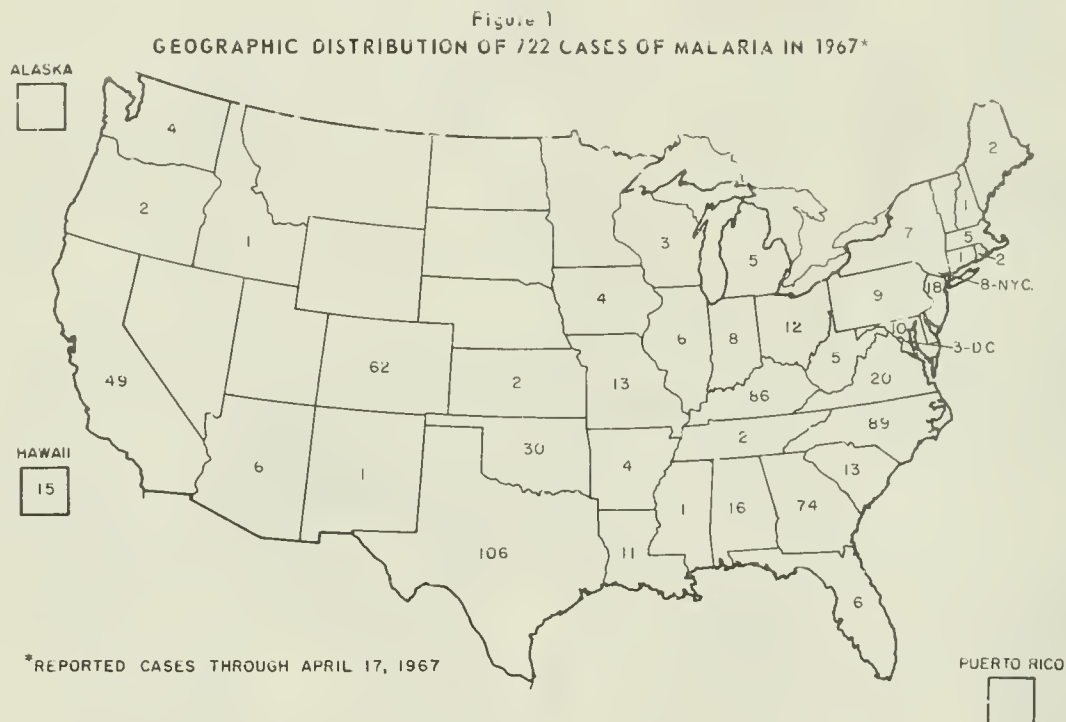
Year	Military	Civilian	Annual Total
1962	75	44	119
1963	53	90	148
1964	52	119	171
1965	51	105	156
1966	563	115	678
1967*	712	10	

*Reported cases through April 17, 1967.

Table 2
Causative Plasmodium Species of Malaria Cases
in the United States, 1966-1967*

Species	1966		1967*	
	Number	Percent	Number	Percent
<i>P. vivax</i>	382	60.1	588	84.2
<i>P. falciparum</i>	221	34.7	95	13.6
<i>P. malariae</i>	12	1.9	3	0.4
<i>P. ovale</i>	13	2.0	1	0.1
Mixed infections	8	1.3	12	1.7
All cases	636	100.0	699	100.0

*Reported cases through April 17, 1967.



The geographic distribution of the 722 cases is shown in Figure 1. Cases are concentrated in California, Colorado, Georgia, Kentucky, North Carolina, and Texas because of the location of military centers receiving returnees in these states.

(Reported by the Parasitic Diseases Section, Epidemiology Program, CDC.)

Editorial Note:

The relative importance of specific factors responsible for this increase in malaria are unclear. The number of military personnel stationed in Vietnam, their concentration in malarious areas, the species of *Plasmodium* to which they are being exposed, the length of the transmission season, and the rate at which servicemen are returning to the United States all influence to an as yet undetermined degree the number of imported malaria cases.

The increase in vivax malaria is important since the few episodes of introduced² malaria in the United States during the past 15 years were due to *Plasmodium vivax*.

Mosquitoes capable of malaria transmission are present in most of the country and the possibility of local, temporary reestablishment of *P. vivax* in such vectors exists. The likelihood of such an occurrence is small and past experience suggests that any introduced cases would be few and such outbreaks self-limiting. The best defense against the spread of malaria is intensive surveillance. Physicians should be encouraged to report all suspect malaria and each report should be investigated to verify diagnosis and to determine source of infection.

²Introduced - malaria acquired by mosquito transmission contracted from an imported case in an area where malaria is not a regular occurrence.

EPIDEMIOLOGIC NOTES AND REPORTS BLOOD TRANSFUSION INDUCED CASE OF FALCIPARUM MALARIA - California

A case of falciparum malaria following blood transfusion was recently diagnosed in a 62-year-old Negro male resident of Oakland, California. The patient has resided there for the last 20 years. His only travel abroad was a brief trip to Mexico City in 1921. He has no history of drug addiction.

He was hospitalized in San Francisco on December 21, 1966, for treatment of myocardial infarction and has remained there since. He was given two units of packed red cells for anemia on March 4 and 5. On March 12 his temperature rose to 101°F. and exceeded 103°F. on each of the next 3 days. This was followed by spiking fevers up to 104°F., every other day. *Plasmodium falciparum* parasites were identified on a routine differential blood smear and antimalarial therapy was initiated.

Both donors of the packed red cells were identified as servicemen. One of them had not been abroad and did not have a history compatible with malaria; his serum tested by the indirect fluorescent antibody technique contained no antibodies to malaria. The other donor had served in Vietnam from August 1965 until June 26, 1966. He had experienced periodic chills, fever, and sweating from 4 days before his departure from Vietnam through his 30-day home leave after arriving in the United States. He was stationed in Kentucky and there had two additional episodes of chills, fever, and sweats; the last episode occurred in January 1967. No diagnosis of malaria was ever made. This serviceman stated that he had continuously

taken the prescribed malaria prophylaxis (one weekly tablet of 300 mg. chloroquine base and 45 mg. primaquine) while stationed in Vietnam and for 8 weeks following departure.

He donated blood in San Francisco on March 2, 1967, and packed red cells from this donation were given to the patient on March 4. The fluorescent antibody titer of the serviceman was 1:80 for *P. falciparum*. No parasites were found in his peripheral blood when examined between April 1 and 6. His bone marrow showed degenerated schizonts and pigment, and examination of liver biopsy material showed diffuse pigmentation.

(Reported by Dr. Philip K. Condit, Director of Epidemiology, and Dr. Rebecca Proctor, California State Department of Public Health; Dr. Richard E. Ferguson and Paul Isakson, San Francisco; Col. Arthur Steer, M.C., U.S.A., Letterman General Hospital, San Francisco; Dr. Erwin H. Bruff, Director, Disease Control, San Francisco Department of Public Health; and the Malaria Surveillance Unit, Epidemiology Program, NCDC.)

Editorial Note:

Since 1957, 11 cases of blood transfusion induced malaria have been reported to the NCDC. An episode identical to this present case report occurred in an American Navy dependent at the Naval Hospital in Naples, Italy, in November 1966. The species involved in that case was also *P. falciparum*, and the donor was a serviceman who had been stationed in Vietnam.

IMPORTED CANINE RABIES - Portland, Oregon

The brain of a 4-year-old part-Pekingese mongrel was tested by the Laboratory Section of the Oregon State Board of Health and found positive for rabies by the presence of Negri bodies and by the fluorescent antibody test on March 13, 1967, and later by the mouse inoculation test. The dog, which had no known history of immunization against rabies, had been purchased in Mexico several months earlier. When he was taken across the border on March 1 at San Luis, Arizona, he was probably incubating rabies. The owner, after entering the United States, returned with the dog to his mobile trailer home on Hayden Island, a suburb of Portland, Oregon.

On March 6, the dog was taken to a veterinarian because of marked pruritis. Although the veterinarian could find no reason for the pruritis, he noted that the dog was docile but when examined became fairly vicious. During the course of the examination, the assistant suffered several deep scratches on the hands and forearms.

After the examination the dog was taken home, but he ran away and roamed the island until March 12. He was caught and destroyed after he had bitten three persons and attempted to bite a fourth. Following the positive

laboratory examination of the brain, treatment for exposure was begun in the veterinarian's assistant, the three persons who were bitten, and two others who had had close contact with the dog the weekend of March 4-5. The two with the most severe exposures received duck embryo vaccine plus rabies immune serum; all others received DEV only.

Since the animal's whereabouts and behavior during the week he roamed the island in a probably infectious state were unknown, the incident was publicized to inform and alert persons who might have had contact with this dog. Eight dogs and one cat thought to have been exposed to the rabid dog are under observation in quarantine.

A 90-day quarantine and immunization were recommended for all cats and dogs on the island. The mass immunization program was conducted on March 17. The local health department is carrying out a stray animal control program and is planning a wild animal population control campaign.

(Reported by Dr. Edward L. Goldblatt, Director, Epidemiology Section, and Dr. Monroe Holmes, Public Health Veterinarian, Oregon State Board of Health.)

CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

APRIL 15, 1967 AND APRIL 16, 1966 (15th WEEK)

AREA	ASEPTIC MENINGITIS		BRUCELLOSIS	DIPHTHERIA	ENCEPHALITIS			HEPATITIS			
					Primary including unsp. cases		Post- Infectious	Serum		Infectious	
	1967	1966			1967	1967	1966	1967	1967	1966	1967
UNITED STATES...	33	31	4	-	30	32	29	41	34	842	602
NEW ENGLAND.....	-	2	-	-	2	1	-	3	2	33	22
Maine.....	-	-	-	-	-	-	-	-	-	2	4
New Hampshire.....	-	-	-	-	-	-	-	-	-	1	1
Vermont.....	-	-	-	-	-	-	-	-	-	-	-
Massachusetts.....	-	-	-	-	-	-	-	-	-	22	12
Rhode Island.....	-	2	-	-	1	1	-	2	1	5	1
Connecticut.....	-	-	-	-	1	-	-	1	1	3	4
MIDDLE ATLANTIC.....	6	4	-	-	6	2	3	15	12	174	91
New York City.....	1	1	-	-	1	-	-	11	11	52	12
New York, up-State..	2	-	-	-	-	1	2	-	-	42	24
New Jersey.....	3	1	-	-	3	-	-	4	1	42	15
Pennsylvania.....	-	2	-	-	2	1	1	-	-	38	40
EAST NORTH CENTRAL...	4	4	-	-	6	8	10	2	1	141	147
Ohio.....	-	1	-	-	3	3	-	1	-	36	44
Indiana.....	-	-	-	-	3	4	-	-	-	14	10
Illinois.....	2	-	-	-	-	1	8	1	1	38	16
Michigan.....	2	3	-	-	-	-	2	-	-	43	73
Wisconsin.....	-	-	-	-	-	-	-	-	-	10	4
WEST NORTH CENTRAL...	-	1	-	-	1	-	5	1	-	61	16
Minnesota.....	-	1	-	-	1	-	5	1	-	13	2
Iowa.....	-	-	-	-	-	-	-	-	-	2	5
Missouri.....	-	-	-	-	-	-	-	-	-	38	6
North Dakota.....	-	-	-	-	-	-	-	-	-	1	2
South Dakota.....	-	-	-	-	-	-	-	-	-	-	-
Nebraska.....	-	-	-	-	-	-	-	-	-	3	1
Kansas.....	-	-	-	-	-	-	-	-	-	4	-
SOUTH ATLANTIC.....	1	1	-	-	7	13	4	1	-	108	71
Delaware.....	-	-	-	-	-	-	-	-	-	1	1
Maryland.....	-	-	-	-	-	4	3	1	-	19	21
Dist. of Columbia..	-	-	-	-	-	-	-	-	-	-	-
Virginia.....	-	-	-	-	-	2	-	-	-	30	16
West Virginia.....	-	-	-	-	-	-	-	-	-	8	2
North Carolina.....	-	-	-	-	-	5	-	-	-	9	4
South Carolina.....	1	-	-	-	1	-	-	-	-	1	-
Georgia.....	-	-	-	-	-	-	-	-	-	23	15
Florida.....	-	1	-	-	6	2	1	-	-	17	12
EAST SOUTH CENTRAL...	7	9	1	-	1	3	1	1	-	61	50
Kentucky.....	1	2	-	-	-	-	-	-	-	23	18
Tennessee.....	3	2	1	-	1	1	1	-	-	14	23
Alabama.....	2	2	-	-	-	-	-	1	-	12	7
Mississippi.....	1	3	-	-	-	2	-	-	-	12	2
WEST SOUTH CENTRAL...	4	3	2	-	-	1	1	1	4	83	55
Arkansas.....	-	-	-	-	-	-	-	-	1	3	9
Louisiana.....	-	-	-	-	-	-	1	-	-	11	8
Oklahoma.....	-	-	-	-	-	-	-	-	-	2	1
Texas.....	4	3	2	-	-	1	-	1	3	67	37
MOUNTAIN.....	-	2	-	-	2	1	-	-	-	31	38
Montana.....	-	-	-	-	-	-	-	-	-	5	2
Idaho.....	-	-	-	-	-	-	-	-	-	-	3
Wyoming.....	-	-	-	-	-	-	-	-	-	-	1
Colorado.....	-	-	-	-	2	1	-	-	-	3	21
New Mexico.....	-	1	-	-	-	-	-	-	-	14	5
Arizona.....	-	1	-	-	-	-	-	-	-	7	5
Utah.....	-	-	-	-	-	-	-	-	-	1	1
Nevada.....	-	-	-	-	-	-	-	-	-	1	-
PACIFIC.....	11	5	1	-	5	3	5	17	15	150	112
Washington.....	-	-	-	-	1	-	1	1	-	13	13
Oregon.....	1	-	-	-	-	-	-	-	-	9	10
California.....	10	4	1	-	4	3	4	16	15	127	86
Alaska.....	-	-	-	-	-	-	-	-	-	1	1
Hawaii.....	-	1	-	-	-	-	-	-	-	-	2
Puerto Rico	-	1	-	-	-	-	-	-	-	35	21

MEASLES ERADICATION 1967



The Morbidity and Mortality Weekly Report, in large part an archival document, is not entirely suitable for describing fully the evolution of national efforts for eradication of measles in 1967. Supplements to the MMWR such as this are prepared in the Office of the Director, NCDC in an effort to document more broadly the progress of the national campaign with interpretations of the total effort.

PRESIDENTIAL ANNOUNCEMENT ON MEASLES ERADICATION

President Lyndon B. Johnson added the considerable support of his office to the national effort for measles eradication in the United States in 1967 when he made an announcement from the Texas White House on March 6. On that date, the President released a detailed memorandum from John W. Gardner, Secretary, Department of Health, Education, and Welfare, portions of which are reprinted:

“Only a few years ago, the parents of our Nation’s children saw the dreaded disease of polio practically eliminated through the use of vaccine.

“Today we are on the threshold of eliminating another dangerous disease – measles.

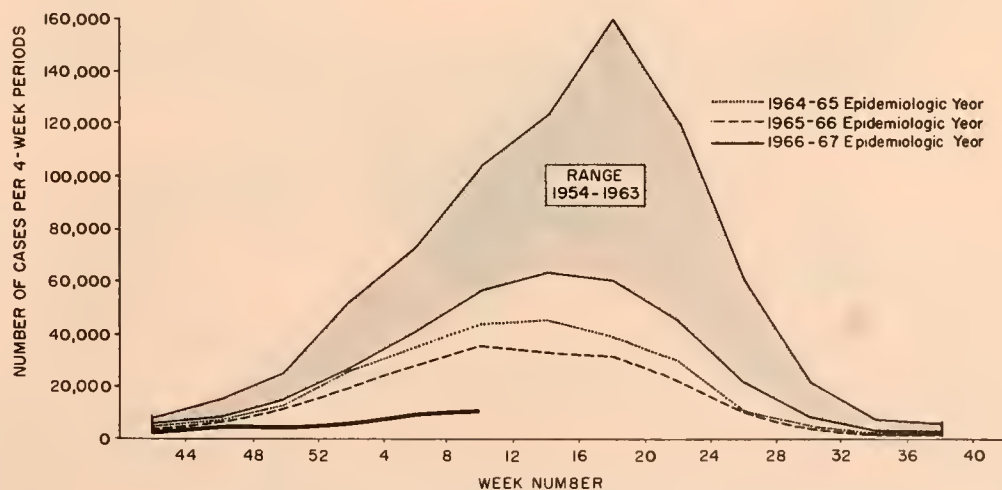
“Since measles vaccine was first licensed and made available to the public in 1963, the number of cases has plunged downward.

“Our goal is to eliminate measles from the United States in 1967. The Surgeon General’s target for this year is the vaccination of between 8 and 10 million children – all susceptible children between the ages of one and seven.

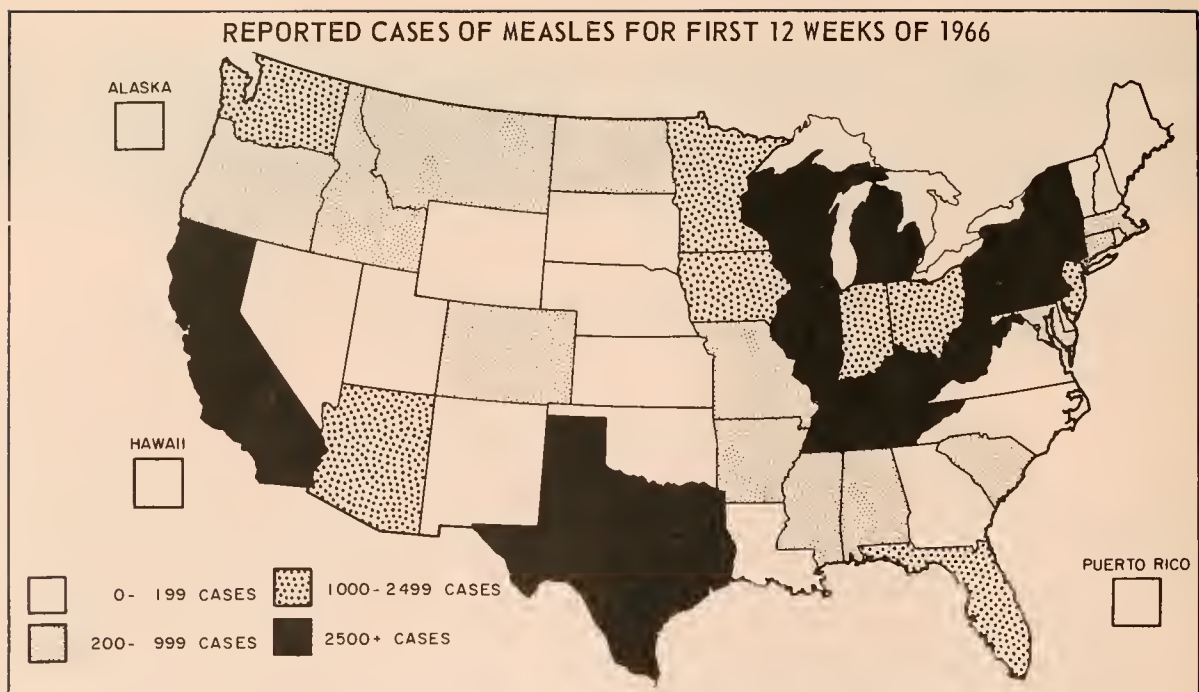
“The extensive collaboration – national, State, and local, public and private – which is taking place throughout the United States assures success in our drive to eliminate measles as a threat to America’s children.”

STATUS OF MEASLES CASES

REPORTED CASES OF MEASLES BY FOUR-WEEK PERIODS, UNITED STATES
Epidemiologic Years, 1964-65, 1965-66 and 1966-67
Compared with 10-year Period, 1954-63

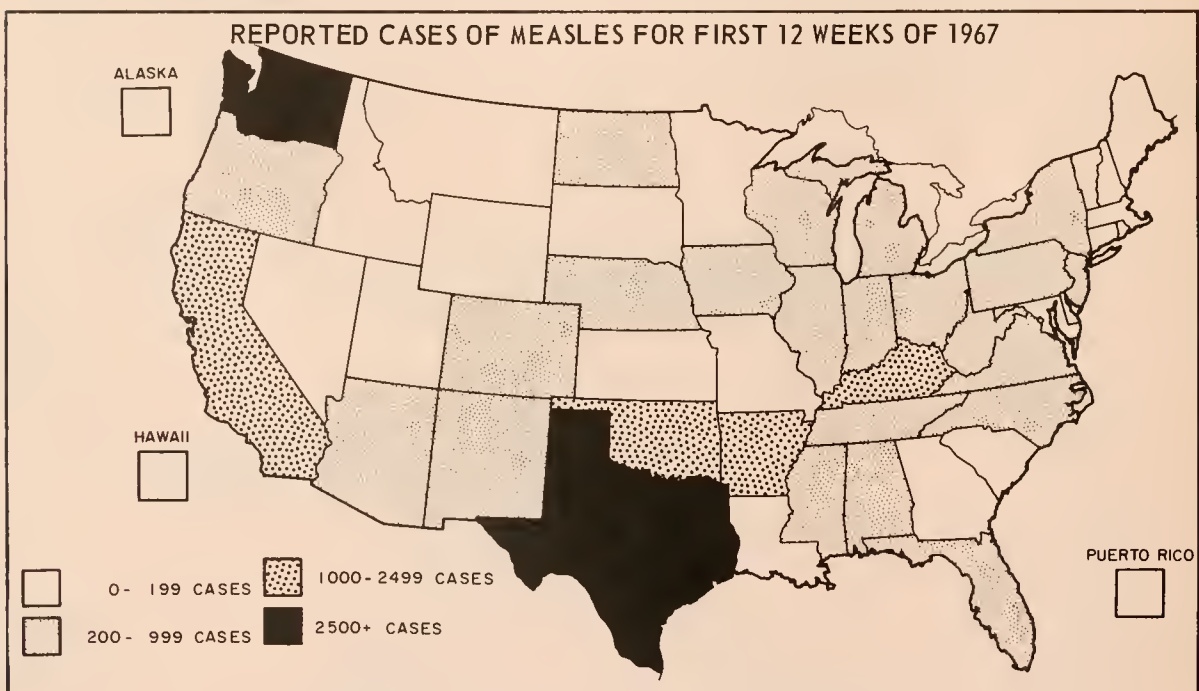


The number of cases of measles reported in recent weeks continues to reflect the lowest incidence since measles data were compiled beginning early in the century. The usual seasonal increase in cases is not being seen. The weekly number of cases remains remarkably constant.



CURRENT GEOGRAPHIC DISTRIBUTION OF MEASLES CASES

The current geographic distribution of reported measles cases in the U.S. for the first 12 weeks in 1967 is contrasted with that in the first 12 weeks of 1966. Arbitrary levels of numbers of cases rather than the rates are presented for simplicity. It is readily apparent that although measles continues to be relatively widespread in the U.S., the intensity of its presence is appreciably reduced.



AMERICAN MEDICAL ASSOCIATION SUPPORT

As part of its considerable support to the national effort for measles eradication in 1967, the American Medical Association's Task Force on Health Education to Promote Immunization has prepared a campaign kit. The kit containing education materials, such as news releases, sample speeches, editorial, radio and television health messages, posters, and literature for the public as well as guides to program planning has been sent to each State and local medical society. The AMA's efforts in behalf of comprehensive immunization is apparent in the kit although basic emphasis is on measles vaccination.

NCDC ASSISTANCE IN CONTROL OF MEASLES EPIDEMICS

One of the four points made by Surgeon General William H. Stewart in his initial challenge for measles eradication in 1967 deals with control of epidemics. In support of this integral part of the total program, assistance from the National Communicable Disease Center including measles vaccine, jet injector equipment, and manpower can be made available to all States. A supply of Pitman-Moore measles vaccine in 50 dose vials (for jet injector use only) and Philips Roxane measles vaccine, with measles immune globulin, in single and ten dose vials is maintained by the NCDC. Epidemiologically trained personnel, stationed in various State and local health departments and in Atlanta, as well as jet injector equipment, if needed, can usually be dispatched on short notice. In emergencies, assistance can be requested by State Health Departments by contacting the Immunization Program, NCDC, Area Code 404, 633-3311, Extension 3741.

COST OF MEASLES EPIDEMICS

Estimates of the annual costs of measles epidemics in a community unprotected by immunization as compared with the cost of a community-wide immunization program are shown in the table below. The estimates are based on one million population prior to the use of measles vaccine.

AVERAGE ANNUAL COST OF MEASLES IN A COMMUNITY OF ONE MILLION		
	Number	Approximate Direct Costs
Susceptibles (1-12 Yrs.)	50,000	
Total Cases of Measles	20,000	
Treated at Home	19,800	\$200,000*
Treated in Hospital (Avg. 9.5 Days)	120	47,000
Complications	80	
Encephalitis	10	
Deaths	2	
School Days Lost	30,000	100,000
Immune Globulin for Contacts		4,500
Susceptibles Remaining	30,000	
		\$351,500*
TO IMMUNIZE <u>ALL</u> 50,000 SUSCEPTIBLES \$100,000		

*Does not include any loss of income by parents and other indirect costs.

NATIONAL ORGANIZATIONS SUPPORT MEASLES ERADICATION

The National Communicable Disease Center has had correspondence with a large number of the Nation's voluntary health, civic and fraternal organizations regarding eradication of measles in 1967. When informed of the seriousness of measles and the plan for its eradication, there were enthusiastic offers of support and subsequent encouragement of the organizations' membership to cooperate in all ways with development of community and State-wide programs. The following excerpts of letters received from a few of the organizations evidence the level of interest which these groups are showing in efforts to promote measles eradication.

"... glad to cooperate in every way possible ..."

The International City Managers' Association

"... we are interested in developing a program in the local communities designed to eradicate measles."

American Federation of Labor and Congress of Industrial Organizations

"... very interested in such a problem and will assist in every way ..."

Notional 4-H Club Foundation

"... pleased to join in this effort ..."

Girl Scouts of the U.S.A.

"... you can count on Civitan International to be of assistance..."

Civitan International

"... in full support ... will do everything possible ..."

Notional Social Welfare Assembly, Inc.

"... pleased to cooperate ..."

American Assoc. for Health, Phys. Education and Recreation

"... vitally interested ... eager to participate in every possible way ..."

American Pharmaceutical Association

"... pledged full support to the Surgeon General in his anti-measles campaign ..."

U.S. Conference of City Health Officers

"... very pleased to cooperate ..."

Notional Society for Crippled Children and Adults

"... welcome the opportunity to assist ..."

Notional Association of the Deaf

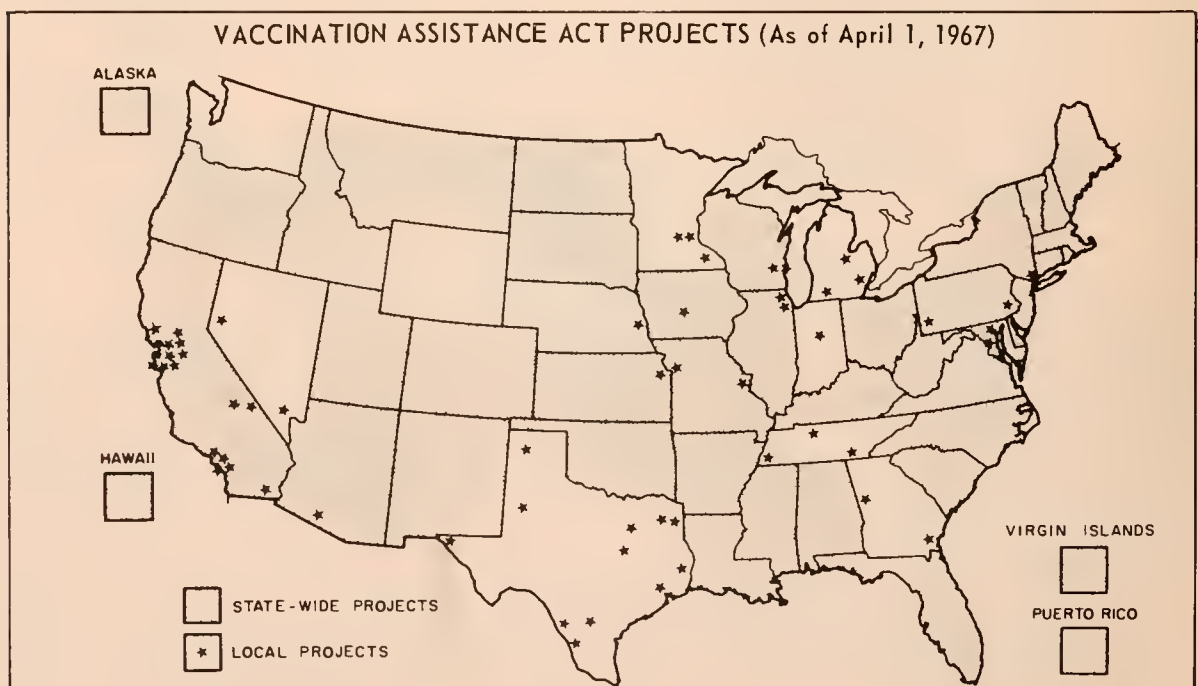
"... happy to cooperate in the campaign to eradicate measles in the United States in 1967."

Notional Exchange Club

VACCINATION ASSISTANCE ACT SUPPORT

The map below denotes areas of the U.S. that as of April 1, 1967 had Immunization Project Grants. Within the areas encompassed by these projects is 84% of the Nation's population.

Since autumn of 1966, immunization projects have emphasized measles eradication assistance. Considerable effort and resources have been committed to the development of improved techniques of systematically immunizing one year olds and other preschool children susceptible to measles and of optimal surveillance to provide an efficient alert to the introduction and spread of measles as well as diphtheria, whooping cough, tetanus and poliomyelitis.



Morbidity and Mortality Weekly Report

121

CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

APRIL 15, 1967 AND APRIL 16, 1966 (15th WEEK) - CONTINUED

AREA	MALARIA	MEASLES (Rubeola)		MENINGOCOCCAL INFECTIONS, TOTAL			POLIOMYELITIS			RUBELLA	
	1967	1967	Cumulative		1967	Cumulative		Total	Paralytic		1967
			1967	1966		1967	1967	1966	1967	1967	
UNITED STATES...	21	2,690	34,519	109,383	73	893	1,530	1	1	3	1,701
NEW ENGLAND.....	1	32	405	1,321	2	32	72	-	-	-	155
Maine.....	-	5	84	149	1	2	7	-	-	-	14
New Hampshire.....	1	-	68	20	-	1	7	-	-	-	6
Vermont.....	-	8	34	202	-	-	3	-	-	-	-
Massachusetts.....	-	13	150	507	1	14	29	-	-	-	57
Rhode Island.....	-	2	27	57	-	1	5	-	-	-	18
Connecticut.....	-	4	42	386	-	14	21	-	-	-	60
MIDDLE ATLANTIC.....	3	105	1,133	13,229	26	132	166	-	-	1	81
New York City.....	1	14	180	6,720	2	20	24	-	-	1	39
New York, Up-State..	-	24	264	1,472	3	33	47	-	-	-	41
New Jersey.....	2	19	279	1,373	11	55	47	-	-	-	-
Pennsylvania.....	-	48	410	3,664	10	24	48	-	-	-	1
EAST NORTH CENTRAL...	1	235	2,735	41,537	7	91	224	-	-	-	371
Ohio.....	-	61	467	3,266	4	37	61	-	-	-	53
Indiana.....	1	19	312	2,494	-	13	35	-	-	-	34
Illinois.....	-	41	416	8,571	-	17	44	-	-	-	56
Michigan.....	-	39	579	6,897	2	17	62	-	-	-	99
Wisconsin.....	-	75	961	20,309	1	7	22	-	-	-	129
WEST NORTH CENTRAL...	-	117	1,554	5,115	1	38	80	-	-	-	80
Minnesota.....	-	13	68	1,238	-	8	21	-	-	-	7
Iowa.....	-	15	367	2,782	1	9	12	-	-	-	53
Missouri.....	-	58	111	315	-	9	33	-	-	-	6
North Dakota.....	-	15	585	735	-	-	3	-	-	-	9
South Dakota.....	-	-	39	3	-	5	2	-	-	-	2
Nebraska.....	-	16	384	42	-	6	3	-	-	-	3
Kansas.....	-	NN	NN	NN	-	1	6	-	-	-	-
SOUTH ATLANTIC.....	7	504	3,904	8,454	10	172	242	1	1	1	144
Delaware.....	-	1	27	117	-	5	3	-	-	-	3
Maryland.....	-	5	68	1,309	-	20	23	1	1	1	15
Dist. of Columbia..	-	-	11	302	-	3	6	-	-	-	-
Virginia.....	-	230	1,219	846	-	13	31	-	-	-	34
West Virginia.....	-	51	694	3,293	1	15	8	-	-	-	7
North Carolina.....	4	41	685	145	2	34	48	-	-	-	-
South Carolina.....	3	98	253	399	2	14	34	-	-	-	21
Georgia.....	-	9	23	177	-	30	41	-	-	-	-
Florida.....	-	69	924	1,866	5	38	48	-	-	-	64
EAST SOUTH CENTRAL...	-	160	3,638	12,034	6	88	129	-	-	-	117
Kentucky.....	-	20	1,015	3,690	2	25	57	-	-	-	13
Tennessee.....	-	81	1,216	6,955	1	38	40	-	-	-	103
Alabama.....	-	45	843	778	3	16	23	-	-	-	1
Mississippi.....	-	14	564	611	-	9	9	-	-	-	-
WEST SOUTH CENTRAL...	6	674	11,961	12,541	11	146	231	-	-	1	17
Arkansas.....	-	7	1,312	375	2	16	12	-	-	-	-
Louisiana.....	1	12	82	64	4	55	89	-	-	-	-
Oklahoma.....	5	6	2,445	268	1	8	9	-	-	-	-
Texas.....	-	649	8,122	11,834	4	67	121	-	-	1	17
MOUNTAIN.....	2	299	2,520	5,913	2	19	56	-	-	-	131
Montana.....	-	2	183	867	-	-	3	-	-	-	28
Idaho.....	-	59	275	614	-	1	1	-	-	-	4
Wyoming.....	-	-	14	82	-	-	1	-	-	-	-
Colorado.....	2	86	622	641	2	10	32	-	-	-	73
New Mexico.....	-	44	393	332	-	3	9	-	-	-	-
Arizona.....	-	59	579	3,174	-	2	8	-	-	-	24
Utah.....	-	7	224	179	-	1	-	-	-	-	2
Nevada.....	-	42	230	24	-	2	2	-	-	-	-
PACIFIC.....	1	564	6,669	9,239	8	175	330	-	-	-	605
Washington.....	-	206	3,274	1,791	2	18	19	-	-	-	77
Oregon.....	1	98	818	721	-	13	15	-	-	-	55
California.....	-	252	2,420	6,614	5	136	280	-	-	-	384
Alaska.....	-	6	87	51	1	8	13	-	-	-	9
Hawaii.....	-	2	70	62	-	-	3	-	-	-	80
Puerto Rico.....	-	136	1,205	1,396	-	7	2	-	-	-	1

CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
FOR WEEKS ENDED

APRIL 15, 1967 AND APRIL 16, 1966 (15th WEEK) - CONTINUED

AREA	STREPTOCOCCAL SORE THROAT & SCARLET FEVER	TETANUS		TULAREMIA		TYPHOID		TYPHUS FEVER TICK-BORNE (Rky. Mt. Spotted)		RABIES IN ANIMALS	
	1967	1967	Cum. 1967	1967	Cum. 1967	1967	Cum. 1967	1967	Cum. 1967	1967	Cum. 1967
UNITED STATES...	11,810	6	45	4	39	11	93	1	9	96	1,301
NEW ENGLAND.....	2,035	-	-	-	-	-	-	-	-	4	35
Maine.....	78	-	-	-	-	-	-	-	-	-	7
New Hampshire.....	26	-	-	-	-	-	-	-	-	4	22
Vermont.....	59	-	-	-	-	-	-	-	-	-	6
Massachusetts.....	221	-	-	-	-	-	-	-	-	-	-
Rhode Island.....	102	-	-	-	-	-	-	-	-	-	-
Connecticut.....	1,549	-	-	-	-	-	-	-	-	-	-
MIDDLE ATLANTIC.....	1,007	-	5	-	-	1	12	-	-	2	26
New York City.....	18	-	3	-	-	-	7	-	-	-	-
New York, Up-State.....	869	-	1	-	-	1	3	-	-	2	18
New Jersey.....	NN	-	-	-	-	-	1	-	-	-	-
Pennsylvania.....	120	-	1	-	-	-	1	-	-	-	8
EAST NORTH CENTRAL...	1,157	-	2	-	5	1	7	-	1	6	99
Ohio.....	174	-	-	-	-	1	3	-	1	5	45
Indiana.....	159	-	-	-	1	-	-	-	-	-	20
Illinois.....	203	-	2	-	4	-	1	-	-	1	18
Michigan.....	425	-	-	-	-	-	2	-	-	-	2
Wisconsin.....	196	-	-	-	-	-	1	-	-	-	14
WEST NORTH CENTRAL...	576	-	1	-	8	-	2	-	-	22	272
Minnesota.....	7	-	1	-	-	-	-	-	-	-	60
Iowa.....	183	-	-	-	1	-	2	-	-	3	26
Missouri.....	21	-	-	-	3	-	-	-	-	4	64
North Dakota.....	226	-	-	-	-	-	-	-	-	4	49
South Dakota.....	19	-	-	-	-	-	-	-	-	2	33
Nebraska.....	71	-	-	-	-	-	-	-	-	6	18
Kansas.....	49	-	-	-	4	-	-	-	-	3	22
SOUTH ATLANTIC.....	1,332	3	11	-	5	-	9	-	4	19	183
Delaware.....	21	-	-	-	-	-	-	-	-	-	-
Maryland.....	148	-	-	-	-	-	-	-	-	-	-
Dist. of Columbia..	-	-	-	-	-	-	-	-	-	-	-
Virginia.....	663	1	3	-	-	-	2	-	-	11	96
West Virginia.....	211	-	-	-	1	-	1	-	-	4	31
North Carolina.....	36	1	3	-	-	-	2	-	3	-	1
South Carolina.....	21	-	-	-	2	-	-	-	-	-	-
Georgia.....	8	-	1	-	2	-	1	-	1	3	33
Florida.....	224	1	4	-	-	-	3	-	-	1	22
EAST SOUTH CENTRAL...	1,236	1	10	2	5	1	10	-	1	14	334
Kentucky.....	35	-	-	1	1	-	4	-	-	3	61
Tennessee.....	1,042	1	6	1	3	-	2	-	1	11	248
Alabama.....	121	-	3	-	-	1	4	-	-	-	23
Mississippi.....	38	-	1	-	1	-	-	-	-	-	2
WEST SOUTH CENTRAL...	787	2	9	2	10	-	16	-	1	19	239
Arkansas.....	1	1	2	-	1	-	3	-	-	2	37
Louisiana.....	2	1	1	-	2	-	11	-	-	-	27
Oklahoma.....	94	-	-	1	4	-	-	-	1	6	53
Texas.....	690	-	6	1	3	-	2	-	-	11	122
MOUNTAIN.....	1,815	-	-	-	5	6	14	-	-	3	30
Montana.....	65	-	-	-	1	-	1	-	-	-	-
Idaho.....	126	-	-	-	-	-	-	-	-	-	-
Wyoming.....	24	-	-	-	-	-	-	-	-	-	-
Colorado.....	881	-	-	-	1	6	11	-	-	-	3
New Mexico.....	292	-	-	-	-	-	-	-	-	2	7
Arizona.....	174	-	-	-	-	-	2	-	-	1	20
Utah.....	251	-	-	-	3	-	-	-	-	-	-
Nevada.....	2	-	-	-	-	-	-	-	-	-	-
PACIFIC.....	1,865	-	7	-	1	2	23	1	2	7	83
Washington.....	417	-	-	-	-	-	-	-	-	-	-
Oregon.....	78	-	-	-	-	-	-	-	-	-	1
California.....	1,245	-	6	-	1	2	21	1	2	7	82
Alaska.....	75	-	-	-	-	-	-	-	-	-	-
Hawaii.....	50	-	1	-	-	-	2	-	-	-	-
Puerto Rico.....	5	-	3	-	-	-	4	-	-	3	12

123

DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDED APRIL 15, 1967

(By place of occurrence and week of filing certificate. Excludes fetal deaths)

Area	All Causes		Pneumonia and Influenza All Ages	Under 1 year All Causes	Area	All Causes		Pneumonia and Influenza All Ages	Under 1 year All Causes
	All Ages	65 years and over				All Ages	65 years and over		
NEW ENGLAND:	764	483	59	49	SOUTH ATLANTIC:	1,151	617	41	46
Boston, Mass.-----	264	158	28	20	Atlanta, Ga.-----	129	65	6	5
Bridgeport, Conn.-----	43	25	3	3	Baltimore, Md.-----	267	141	8	13
Cambridge, Mass.-----	28	14	-	1	Charlotte, N. C.-----	36	13	2	1
Fall River, Mass.-----	21	15	1	1	Jacksonville, Fla.-----	57	37	1	4
Hartford, Conn.-----	68	37	5	8	Miami, Fla.-----	98	54	-	5
Lowell, Mass.-----	33	26	2	1	Norfolk, Va.-----	51	29	2	1
Lynn, Mass.-----	26	21	1	-	Richmond, Va.-----	92	42	1	2
New Bedford, Mass.-----	27	19	2	1	Savannah, Ga.-----	41	20	2	3
New Haven, Conn.-----	62	37	3	4	St. Petersburg, Fla.-----	92	68	6	3
Providence, R. I.-----	50	30	3	3	Tampa, Fla.-----	62	40	7	6
Somerville, Mass.-----	12	10	-	1	Washington, D. C.-----	179	88	5	3
Springfield, Mass.-----	33	25	4	2	Wilmington, Del.-----	37	20	1	2
Waterbury, Conn.-----	24	15	-	1					
Worcester, Mass.-----	73	49	7	3	EAST SOUTH CENTRAL:	601	334	30	30
MIDDLE ATLANTIC:	3,377	2,003	134	161	Birmingham, Ala.-----	111	66	1	3
Albany, N. Y.-----	49	31	-	2	Chattanooga, Tenn.-----	37	22	4	2
Allentown, Pa.-----	38	22	3	1	Knoxville, Tenn.-----	35	26	-	2
Buffalo, N. Y.-----	143	93	4	8	Louisville, Ky.-----	119	71	13	6
Camden, N. J.-----	37	21	1	2	Memphis, Tenn.-----	125	61	5	7
Elizabeth, N. J.-----	36	26	2	-	Mobile, Ala.-----	46	20	1	4
Erie, Pa.-----	49	31	3	3	Montgomery, Ala.-----	38	18	3	1
Jersey City, N. J.-----	55	40	4	1	Nashville, Tenn.-----	90	50	3	5
Newark, N. J.-----	74	40	5	3	WEST SOUTH CENTRAL:	1,079	568	31	54
New York City, N. Y.-----	1,712	1,001	68	78	Austin, Tex.-----	40	26	3	3
Paterson, N. J.-----	35	17	2	-	Baton Rouge, La.-----	34	20	1	2
Philadelphia, Pa.-----	566	320	18	40	Corpus Christi, Tex.-----	32	15	-	2
Pittsburgh, Pa.-----	191	107	3	6	Dallas, Tex.-----	146	75	2	7
Reading, Pa.-----	60	43	5	1	El Paso, Tex.-----	29	16	4	3
Rochester, N. Y.-----	105	66	7	10	Fort Worth, Tex.-----	87	53	5	5
Schenectady, N. Y.-----	31	19	2	1	Houston, Tex.-----	209	99	3	6
Scranton, Pa.-----	38	23	3	2	Little Rock, Ark.-----	45	26	2	1
Syracuse, N. Y.-----	50	33	1	3	New Orleans, La.-----	167	82	2	9
Trenton, N. J.-----	48	26	1	-	Oklahoma City, Okla.-----	74	45	2	6
Utica, N. Y.-----	30	20	2	-	San Antonio, Tex.-----	110	55	-	5
Yonkers, N. Y.-----	30	24	-	-	Shreveport, La.-----	48	30	2	1
					Tulsa, Okla.-----	58	26	5	4
EAST NORTH CENTRAL:	2,649	1,515	79	120	MOUNTAIN:	404	227	20	17
Akron, Ohio-----	62	34	-	3	Albuquerque, N. Mex.-----	48	22	3	2
Canton, Ohio-----	37	27	2	1	Colorado Springs, Colo.-----	21	13	6	1
Chicago, Ill.-----	753	394	28	44	Denver, Colo.-----	100	58	3	2
Cincinnati, Ohio-----	187	102	4	8	Ogden, Utah-----	19	14	1	1
Cleveland, Ohio-----	237	135	1	6	Phoenix, Ariz.-----	93	51	5	2
Columbus, Ohio-----	110	62	3	3	Pueblo, Colo.-----	11	9	-	-
Dayton, Ohio-----	86	54	1	2	Salt Lake City, Utah-----	55	29	1	4
Detroit, Mich.-----	366	212	8	13	Tucson, Ariz.-----	57	31	1	5
Evansville, Ind.-----	42	28	2	2	PACIFIC:	1,513	957	39	51
Flint, Mich.-----	46	28	6	2	Berkeley, Calif.-----	30	20	3	1
Fort Wayne, Ind.-----	38	27	2	2	Fresno, Calif.-----	55	33	1	3
Gary, Ind.-----	25	12	3	1	Glendale, Calif.-----	26	21	-	-
Grand Rapids, Mich.-----	59	38	3	5	Honolulu, Hawaii-----	56	32	1	1
Indianapolis, Ind.-----	147	76	2	13	Long Beach, Calif.-----	87	62	8	2
Madison, Wis.-----	32	22	-	2	Los Angeles, Calif.-----	454	287	8	18
Milwaukee, Wis.-----	120	75	1	4	Oakland, Calif.-----	71	38	-	1
Peoria, Ill.-----	39	22	1	1	Pasadena, Calif.-----	23	17	1	-
Rockford, Ill.-----	34	25	4	-	Portland, Oreg.-----	112	75	-	4
South Bend, Ind.-----	40	18	2	2	Sacramento, Calif.-----	58	33	1	1
Toledo, Ohio-----	121	80	4	4	San Diego, Calif.-----	89	60	3	3
Youngstown, Ohio-----	68	44	2	2	San Francisco, Calif.-----	187	100	3	10
WEST NORTH CENTRAL:	757	462	27	42	San Jose, Calif.-----	36	23	2	1
Des Moines, Iowa-----	56	33	2	2	Seattle, Wash.-----	142	97	4	3
Duluth, Minn.-----	21	15	-	1	Spokane, Wash.-----	59	42	1	2
Kansas City, Kans.-----	41	18	4	9	Tacoma, Wash.-----	28	17	3	1
Kansas City, Mo.-----	128	67	2	7					
Lincoln, Nebr.-----	20	15	3	1					
Minneapolis, Minn.-----	103	58	2	5					
Omaha, Nebr.-----	74	44	1	2					
St. Louis, Mo.-----	189	125	9	8					
St. Paul, Minn.-----	73	54	2	2					
Wichita, Kans.-----	52	33	2	5					
					Total	12,295	7,166	460	570
					Cumulative Totals including reported corrections for previous weeks				
					All Causes, All Ages ----- 194,788				
					All Causes, Age 65 and over----- 112,850				
					Pneumonia and Influenza, All Ages----- 7,843				
					All Causes, Under 1 Year of Age----- 9,784				



CURRENT TRENDS INFLUENZA - 1967

Small outbreaks of laboratory confirmed influenza have been reported from two states within the past 2 weeks. In southern California, influenza B virus has been isolated from 13- to 18-year-old boys in several probationary camps. Complete laboratory characterization is in progress. The Connecticut State Department of Health has reported an outbreak of influenza A₂ among patients in a convalescent home in the eastern part of the state. The type was determined by hemagglutination inhibition; viral isolates are currently being characterized. Another small outbreak of influenza has been recognized in the western part of Connecticut. Complement fixation studies reveal this is an A virus; further characterization is in progress.

(Reported by Dr. Philip K. Condit, Chief, Bureau of Communicable Diseases, California State Department of Public Health; Dr. James C. Hart, Director, Bureau of Preventable Diseases, Connecticut State Department of Health.)

INTERNATIONAL NOTES QUARANTINE MEASURES

Immunization Information for International Travel
1965-66 edition—Public Health Service Publication No. 384

The following information should be added to the list of Yellow Fever Vaccination Centers in Section 6:

Page 73

City: Colorado Springs, Colorado
Center: City-County Health Department
Clinic Hours: First & Third Tuesday - 11 a.m. - 12 noon
Fee: Yes

THE MORBIDITY AND MORTALITY WEEKLY REPORT, WITH A CIRCULATION OF 17,000, IS PUBLISHED AT THE NATIONAL COMMUNICABLE DISEASE CENTER, ATLANTA, GEORGIA.

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CHIEF, EPIDEMIOLOGY PROGRAM
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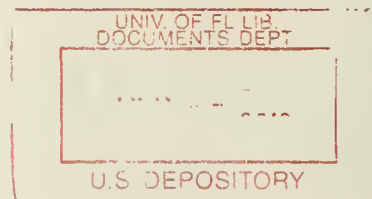
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IN ADDITION TO THE ESTABLISHED PROCEDURES FOR REPORTING MORBIDITY AND MORTALITY, THE NATIONAL COMMUNICABLE DISEASE CENTER WELCOMES ACCOUNTS OF INTERESTING OUTBREAKS OR CASE INVESTIGATIONS WHICH ARE OF CURRENT INTEREST TO HEALTH OFFICIALS AND WHICH ARE DIRECTLY RELATED TO THE CONTROL OF COMMUNICABLE DISEASES. SUCH COMMUNICATIONS SHOULD BE ADDRESSED TO:

THE EDITOR
MORBIDITY AND MORTALITY WEEKLY REPORT
NATIONAL COMMUNICABLE DISEASE CENTER
ATLANTA, GEORGIA 30333

NOTE: THE DATA IN THIS REPORT ARE PROVISIONAL AND ARE BASED ON WEEKLY TELEGRAMS TO THE NCDC BY THE INDIVIDUAL STATE HEALTH DEPARTMENTS. THE REPORTING WEEK CONCLUDES ON SATURDAY; COMPILED DATA ON A NATIONAL BASIS ARE RELEASED ON THE SUCCEEDING FRIDAY.

U.S. DEPARTMENT OF
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